AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Currently Amended) A high-strength hot-rolled steel sheet having ferritic structure ~~strengthen by TiC and/or NbC precipitates~~ and ~~adding no Mg~~ a strength of at least 1049 N/mm^2 excellent in hole expandability and ductility, consisting essentially of, in terms of a mass%:

C	:	0.01 to 0.09%,
Si	:	1.2 to 1.5%,
Mn	:	0.5 to 3.2%,
Al	:	0.003 to 0.04%,
P	:	0.03% or below,
S	:	0.005% or below,
Ti	:	0.10 to 0.25%,
Nb	:	0.01 to 0.05%,

~~at least one of Cu: 0.1 to 1.5% and Ni: 0.1 to 1.0%, and~~

the balance consisting of iron and unavoidable impurities; and satisfying all of the following formulas <1> to <3>:

$0.9 \leq 48/12 \times C/Ti < 1.7$ . . . <1>

$50{,}227 \times C - 4{,}479 \times Mn > -9{,}860$ . . . <2>

$811 \times C + 135 \times Mn + 602 \times Ti + 794 \times Nb > 465$

. . . <3>, ~~and~~

~~having strength of at least 980 N/mm^2~~ wherein said hot rolled steel sheet is produced by the steps comprising:

finishing hot rolling at rolling end temperature from an Ar_3 transformation point to 950°C;

cooling the steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling the steel sheet for 0.5 to 0.8 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet, whereby ferritic structure is strengthened by TiC and/or NbC precipitates, Mn and C without adding Mg.

2. (Currently Amended) A high-strength hot-rolled steel sheet having ferritic structure ~~strengthen by TiC and/or NbC precipitates~~ and ~~adding no Mg~~ a strength of at least 1049 N/mm^2 excellent in hole expandability and ductility, consisting essentially of, in terms of a mass%:

C	:	0.01 to 0.09%,
Si	:	1.2 to 1.5%,
Mn	:	0.5 to 3.2%,
Al	:	0.003 to 0.04%,
P	:	0.03% or below,
S	:	0.005% or below,
Ti	:	0.10 to 0.25%,
Nb	:	0.01 to 0.05%,

at least one of Mo: 0.05 to 0.40% and V: 0.001 to 0.10%,

~~at least one of Cu: 0.1 to 1.5% and Ni: 0.1 to 1.0%, and~~ the balance consisting of iron and unavoidable impurities; and satisfying all of the following formulas <1>' to <3>':

$$0.9 \leq 48/12 \times C/Ti < 1.7 \quad \ldots <1>'$$

$$50{,}227 \times C - 4{,}479 \times (Mn + 0.57 \times Mo + 1.08 \times V) > -9{,}860 \quad \ldots <2>'$$

$$811 \times C + 135 \times (Mn + 0.57 \times Mo + 1.08 \times V) + 602 \times Ti + 794 \times Nb > 465 \quad \ldots <3>',$$ ~~and~~

~~having strength of at least 980 N/mm^2~~ wherein said hot rolled steel sheet is produced by the steps comprising:

finishing hot rolling at rolling end temperature from an Ar_3 transformation point to 950°C;

cooling the steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling the steel sheet for 0.5 to 0.8 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet, whereby ferritic structure is strengthened by TiC and/or NbC precipitates, Mn and C without adding Mg.

3-5. (Canceled).

6. (Withdrawn) A production method of a high strength hot rolled steel sheet excellent in hole expandability and ductility according to claim 1, comprising the steps of:

finishing hot rolling by setting a rolling end temperature to from an Ar_3 transformation point to 950°C;

cooling a hot rolled steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling then the steel sheet for 0.5 to 15 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet.

7. (New) A high-strength hot-rolled steel sheet having ferritic structure and a strength of at least 1049 N/mm^2 excellent in hole expandability and ductility, consisting essentially of, in terms of a mass%:

C	:	0.01 to 0.09%,
Si	:	1.2 to 1.5%,
Mn	:	0.5 to 3.2%,
Al	:	0.003 to 0.04%,
P	:	0.03% or below,
S	:	0.005% or below,
Ti	:	0.10 to 0.25%,
Nb	:	0.01 to 0.05%,

at least one of Ca, Zr and REM: 0.0005 to 0.01%,

the balance consisting of iron and unavoidable impurities; and satisfying all of the following formulas <1> to <3>:

$$0.9 \leq 48/12 \times C/Ti < 1.7 \quad \ldots \quad <1>$$

$$50{,}227 \times C - 4{,}479 \times Mn > -9{,}860 \quad \ldots \quad <2>$$

$$811 \times C + 135 \times Mn + 602 \times Ti + 794 \times Nb > 465 \quad \ldots \quad <3>,$$

wherein said hot rolled steel sheet is produced by the steps comprising:

finishing hot rolling at rolling end temperature from an Ar_3 transformation point to 950°C;

cooling the steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling the steel sheet for 0.5 to 0.8 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet, whereby ferritic structure is strengthened by TiC and/or NbC precipitates, Mn and C without adding Mg.

8. (New) A high-strength hot-rolled steel sheet having ferritic structure and a strength of at least 1049 N/mm^2 excellent in hole expandability and ductility, consisting essentially of, in terms of a mass%:

C	:	0.01 to 0.09%,
Si	:	1.2 to 1.5%,
Mn	:	0.5 to 3.2%,
Al	:	0.003 to 0.04%,
P	:	0.03% or below,
S	:	0.005% or below,
Ti	:	0.10 to 0.25%,
Nb	:	0.01 to 0.05%,

at least one of Cu: 0.1 to 1.5% and Ni: 0.1 to 1.0%,

the balance consisting of iron and unavoidable impurities; and satisfying all of the following formulas <1> to <3>:

$$0.9 \leq 48/12 \times C/Ti < 1.7 \quad \ldots \quad <1>$$

$$50{,}227 \times C - 4{,}479 \times Mn > -9{,}860 \quad \ldots \quad <2>$$

$$811 \times C + 135 \times Mn + 602 \times Ti + 794 \times Nb > 465 \quad \ldots \quad <3>,$$

wherein said hot rolled steel sheet is produced by the steps comprising:

finishing hot rolling at rolling end temperature from an Ar_3 transformation point to 950°C;

cooling the steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling the steel sheet for 0.5 to 0.8 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet, whereby ferritic structure is strengthened by TiC and/or NbC precipitates, Mn and C without adding Mg.

9. (New) A high-strength hot-rolled steel sheet having ferritic structure and a strength of at least 1049 N/mm^2 excellent in hole expandability and ductility, consisting essentially of, in terms of a mass%:

C : 0.01 to 0.09%,
Si : 1.2 to 1.5%,
Mn : 0.5 to 3.2%,
Al : 0.003 to 0.04%,
P : 0.03% or below,
S : 0.005% or below,
Ti : 0.10 to 0.25%,
Nb : 0.01 to 0.05%,

at least one of Mo: 0.05 to 0.40% and V: 0.001 to 0.10%,

at least one of Ca, Zr and REM: 0.0005 to 0.01%,

the balance consisting of iron and unavoidable impurities; and satisfying all of the following formulas <1>' to <3>':

$0.9 \leq 48/12 \times C/Ti < 1.7$ . . . <1>'

$50{,}227 \times C - 4{,}479 \times (Mn + 0.57 \times Mo + 1.08 \times V) >$
$-9{,}860$ . . . <2>'

$811 \times C + 135 \times (Mn + 0.57 \times Mo + 1.08 \times V) + 602 \times Ti + 794 \times Nb >$
465 . . . <3>', wherein said hot rolled steel sheet is produced by the steps comprising:

finishing hot rolling at rolling end temperature from an Ar_3 transformation point to 950°C;

cooling the steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling the steel sheet for 0.5 to 0.8 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet, whereby ferritic structure is strengthened by TiC and/or NbC precipitates, Mn and C without adding Mg.

10. (New) A high-strength hot-rolled steel sheet having ferritic structure and a strength of at least 1049 N/mm^2 excellent in hole expandability and ductility, consisting essentially of, in terms of a mass%:

C : 0.01 to 0.09%,

Si : 1.2 to 1.5%,

Mn : 0.5 to 3.2%,

Al : 0.003 to 0.04%,

P : 0.03% or below,

S : 0.005% or below,

Ti : 0.10 to 0.25%,

Nb : 0.01 to 0.05%,

at least one of Mo: 0.05 to 0.40% and V: 0.001 to 0.10%,

at least one of Cu: 0.1 to 1.5% and Ni: 0.1 to 1.0%,

the balance consisting of iron and unavoidable impurities; and satisfying all of the following formulas <1>' to <3>':

$0.9 \leq 48/12 \times C/Ti < 1.7$ . . . <1>'

$50{,}227 \times C - 4{,}479 \times (Mn + 0.57 \times Mo + 1.08 \times V) >$

$-9{,}860$ . . . <2>'

$811 \times C + 135 \times (Mn + 0.57 \times Mo + 1.08 \times V) + 602 \times Ti + 794 \times Nb >$

465 . . . <3>', wherein said hot rolled steel sheet is produced by the steps comprising:

finishing hot rolling at rolling end temperature from an Ar_3 transformation point to 950°C;

cooling the steel sheet to 650 to 800°C at a cooling rate of at least 20°C/sec;

air cooling the steel sheet for 0.5 to 0.8 seconds;

further cooling the steel sheet to 300 to 600°C at a cooling rate of at least 20°C/sec; and

coiling the steel sheet, whereby ferritic structure is strengthened by TiC and/or NbC precipitates, Mn and C without adding Mg.